

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OKLAHOMA**

STATE OF OKLAHOMA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Case No. 05-cv-329-GKF(PJC)
	)	
TYSON FOODS, INC., et al.,	)	
	)	
Defendants.	)	

**DECLARATION OF ROGER L. OLSEN, Ph.D.**

I, Roger L. Olsen, Ph.D., hereby declare as follows:

**A. BACKGROUND**

1. Since February 1985, I have been an employee of Camp Dresser & McKee Inc. ("CDM"), an environmental consulting firm. I currently hold the position of Senior Vice President and Senior Geochemist with CDM. My educational background includes a Bachelor of Science degree, with high distinction in Mineral Engineering Chemistry, from the Colorado School of Mines in Golden, Colorado, in 1972 and a Doctor of Philosophy degree in Geochemistry from the Colorado School of Mines in 1979.

2. From 1975 to 1978, I was an instructor in chemistry and geochemistry at the Colorado School of Mines. I taught courses in general chemistry and quantitative analysis. From 1978 to 1979, I was a senior research chemist with Rockwell International at the Rocky Flats plant. I was responsible for evaluating methods to clean up contaminated soil at Rocky Flats and other Department of Defense facilities. From 1979 to 1983, I was a project supervisor with D'Appolonia Consulting Engineers. In 1983, International Technology (IT) acquired the portion of D'Appolonia for which I

worked. At D'Appolonia and IT, I performed many evaluations related to environmental contamination. In 1985, I joined CDM where I continued to evaluate environmental contamination. I have extensive experience in performing environmental investigations and studies, evaluating the environmental fate and transport of chemicals in the environment and determining the cause or source of contamination in the environment. In all, I have worked on or evaluated environmental conditions at over 500 sites. I am the author or co-author of over 120 publications/presentations and over 400 technical reports relating to environmental contamination.

3. In November 2004, CDM was retained by the Oklahoma Attorney General to perform an investigation concerning environmental contamination found in the Illinois River Watershed ("IRW"). I have been CDM's Project Technical Director since inception of the project. In this capacity, I have helped plan and direct a systematic investigation of the environmental contamination found in the IRW. This investigation included collection and laboratory analyses of poultry waste, soils, surface waters, groundwaters and sediments throughout the IRW.

#### **B. Opinions of Andy Davis, Ph.D.**

4. I have reviewed the opinions of Andy Davis contained in his expert report dated January 29, 2009 and his subsequent corrections.

5. In section 2.1, Sediment Baseline Phosphorus Concentrations, Dr. Davis used the wet weight (as received) concentrations in the sediment reported by A&L Laboratories. Dr. Davis should have used the corrected dry weight concentrations. As a result, all of the values he used in his evaluations in section 2.1 are incorrect. Both the wet weight and dry weight values are clearly identified in the CDM Database and my

Expert Report. For example, Appendix D, Table 18 in my expert report provides a summary of the laboratory results of the river sediment samples collected by the plaintiffs in the IRW. Both wet weight and dry weight concentrations are reported. In Table 18, the percent moisture content for the river samples ranges from 19.15 to 79.78. The percent solids content is also reported (80.85 to 20.22). The measured value of the moisture (or solids) content for each sample must be used to calculate the dry weight concentrations of phosphorus in the sediment samples. For comparison purposes and any statistical evaluations, the dry weight concentrations must be used. Because dry weight concentrations are the only consistent and comparable results, they are universally used by all scientists. Because Dr. Davis's error, all of his conclusions in Section 2.1 including figures 1 and 2 and the calculated baseline concentrations of phosphorus are wrong. Therefore conclusions in subsequent sections of Dr. Davis's Expert Report which use the baseline concentration of phosphorus may also be wrong.

I declare under penalty of perjury, under the laws of the United States of America, that the foregoing is true and correct.

Executed on the 18<sup>th</sup> day of May, 2009.



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Roger L. Olsen, Ph.D.